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Ylian Saint-Hilaire

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

1279 OAKMEAD PARKWAY

SUNNYVALE, CA 94085-4040

EXAMINER

HAJNIK, DANIEL F

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/618,203	Applicant(s) SAINT-HILAIRE ET AL.	
	Examiner DANIEL F. HAJNIK	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8 and 10-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8 and 10-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 8, 12, 13, 15-20, 22-26, 28-31, 33, and 34 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Lok et al. (US Pub 2003/0182469) in view of Suzuki et al. (US Patent 6,331,851)

As per claim 1, Lok teaches the claimed:

1. A method comprising:

receiving, via a network, a motion command ... at a first device from a second device ([0027], “The component in the user interface toolkit may be configured to render a graphical item and the remote-capable component may be configured to generate a command to render a graphical item” (emphasis added in this passage and others) where the motion is the changing or movement within different user interface elements, i.e. selection of different items in the dropdown menu 216 in figure 6a. In this instance, the first device is the client in figure 3 and the second device is the server in figure 3);

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wherein the motion command -- without including pixel values generated by the second device ([0039], “the baseline interface toolkit 110, but which issue remote messages rather than execute graphical functions ... transmits the commands across the network to the client 104 ... A client viewer ... translates the messages issued ... which are rendered on the client frame buffer 1”; in this case, since the graphics are rendered on the client or first device, the commands do not include pixel values generated on the server or second device) directs animation of an image object ([0041], “In rendering the graphical component, the toolkit may include commands to display a plurality of shapes, colors, and text. The toolkit is configured to interact with the application according to an application programming interface. For example, the toolkit receives an invocation, or call, from the application to draw graphical components at certain times during the operation of the application” where drawing graphical components at certain times creates animation effects);

Presenting the animation of the image object on a display of the first device via the GUI ([0041], “a toolkit has the ability to draw a frequently-used, graphical components on a user display as commanded by an application running on the computer”; where a GUI is shown in figure 5).

Lok does not teach the remaining claim limitations.

Suzuki teaches the claimed:

An index, a plurality of display coordinates and a time value (in figures 3 and 4 where time values and display coordinates are shown; and index is shown in figure 9 under the “ID” field of

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the data structure; index information is also shown in figures 12a-c where each image is referred to by an index, i.e. HP1 or HP2).

wherein the motion command, received separately from an image object stored in an image cache to be reference by the index (*in figure 1 where the terminal 52 or first device receives motion command data from the server 51 or second device via "Data Reception Means 11"; these motion commands received are stored in the motion database 15 on the client 52 or first device; also see col 8, lines 60-65, "A data transmission means 1 transmits via the network 53 those 61 of a plurality of scenario data stored in the scenario database 74 which are to be displayed at the terminal 52 ... The scenario data 61 specifies a three-dimensional character to display and defines a combination order of motions required to move the three-dimensional character"; in this case, the motion command is received separately from the image object data stored in the cache because the reference teaches of a way to reference and received image object data from the local terminal or client cache rather than receiving it from the server; thus the motion command data and image object data are received separately; i.e. see col 4, lines 11-17, "This configuration requests the server for only character data that is not present in the character database of the terminal in order to obtain required character data before generating character animations at the terminal"; thus in cases where all the character data is already present in the character database on the terminal, the image object data does not need to be received from the server; thus, the image object data is received separately from the motion command data; note in this case, the character database on the terminal or first device is the claimed image cache);*

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directs animation of the image object at the plurality of display coordinates over the received time period *(in figures 4 and figures 12a-c where the animation of the image object is presented using the display coordinates over time)*.

updating a frame buffer of the first device with the image object of the image cache over the time period to animate the image object per the motion command *(in figure 19, steps 105-107; also see col 18, lines 8-10, "An image display means 107 displays animations by sequentially displaying and updating frame data stored in the frame buffer 105" where this frame buffer is animated over time according to the image cache or animation database and its associated motion commands)*;

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Lok with Suzuki in order to expand the range of graphical capabilities in the user interface and make the output more interesting by use of planned animation. Lok is modified by Suzuki by incorporating the motion commands of Suzuki into the transmitting step of Lok in order to manipulate animation object data stored on a local cache on the client, terminal or first device. Thus, in the combination, Lok transmits the motions command data structure as organized and explained in Suzuki where these commands include indices, coordinates, and time values.

Lok can further be modified by Suzuki by incorporating the indices, coordinate values, and time values received from the server or second device of Suzuki and putting it into the

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interface toolkit of Lok. Through this combination, the animating elements and their associated tags in Suzuki can be built into the graphical user interfaces used by Lok on the client system as shown in figure 7.

As per claim 2, Lok teaches the claimed:

2. The method of claim 1 further comprising generating a video output signal representative of the frame buffer and the motion of the image object ([0041], “a toolkit has the ability to draw a frequently-used, graphical components on a user display as commanded by an application running on the computer” where the displaying requires an output signal).

As per claim 5, Lok teaches the claimed:

5. The method of claim 1 further comprising receiving the image object from the second device ([0046], “receiving commands to draw graphical items”), and storing the image object in the image cache ([0039], “remote-baseline interface toolkit 110, which are rendered on the client frame buffer 116” where image object is stored as a rendered object).

As per claim 8, Lok does not teach the remaining claim limitations.

Suzuki teaches the claimed:

Updating the frame buffer to animation the image object moving along a curve defined by the plurality of coordinates over the time period (in figure 4 where the image moving along a curve

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over time is shown and col 18, lines 8-10, “An image display means 107 displays animations by sequentially displaying and updating frame data stored in the frame buffer 105” where this frame buffer is animated over time).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the curve animation motion of Suzuki with Lok. The motivation of claim 1 is incorporated herein.

As per claim 12, Lok teaches the claimed:

updating the frame buffer with the image object comprises updating the frame buffer ([0041], “In rendering the graphical component, the toolkit may include commands to display a plurality of shapes, colors, and text ... the toolkit receives an invocation, or call, from the application to draw graphical components at certain times during the operation of the application” where drawing graphics at certain times is updating).

Lok does not explicitly teach the remaining claim limitation.

Suzuki teaches the claimed:

the motion command indicates a first rotation, a second rotation and the image is rotated from the first rotation to the second rotation over the time period (*in figure 4 where object data is rotated from a first rotation or starting rotation to an ending rotation position or second rotation; the figure shows this rotating occurs over a time period*).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the first and second rotations as taught by Suzuki with the teachings of Lok. The motivation of claim 1 is incorporated herein.

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As per claim 13, the reasons and rationale for the rejection of claim 12 is incorporated herein.

As per claim 15, Lok does not teach the claimed limitations.

Suzuki teaches the claimed:

15. The method of claim 1 further comprising receiving a cache management command from the second device, and updating the image cache per the cache management command (*col 4, lines 11-17, "This configuration requests the server for only character data that is not present in the character database of the terminal in order to obtain required character data before generating character animations at the terminal"; in this situation, a cache management command is received from the server or second device; also note in this case, the character database on the terminal or first device is the claimed image cache; this information received from the server or second device deals with cache management because the information is helpful for managing the information stored in the character database of the terminal; further, this information is updated over time according to image data received and stored from the server into the character database on the client or terminal).*

It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the cache management as taught by Suzuki with the teachings of Lok in order to provide a better and more efficient cache by actively managing it through management commands.

As per claim 16, Lok does not teach the claimed limitations.

Suzuki teaches the claimed:

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16. The method of claim 1 further comprising providing the second device with an indication that the device has completed the motion command (*in figures 28a-b where the completion of one motion command, i.e. motion data M1 is indicated to the server so that another motion command may be executed, i.e. M2; this information is communicated to server 51 in figure 1 from terminal 52 through network 53; these motions are controlled by motion commands from the server*).

It would have been obvious to one of ordinary skill in the art at the time of invention to utilize an indication message as taught by Suzuki with the teachings of Lok in order to provide better feedback to the another remote device and better communication.

As per claim 17, the reasons and rationale for the rejection of claim 1 is incorporated herein. Lok teaches the claimed:

17. An apparatus (*in figure 3, piece 102, "server"*) comprising

at least one processor to execute instructions ([0054], *"The application logic 106 is executed entirely in the server 102" where executing requires a processor*),

a network interface controller to transmit commands to a remote device (*in the abstract, "A network communication protocol of sending messages between the remote-capable user interface toolkit on the server and the user interface toolkit on the client" where a network interface controller is required to make the network communication protocol work properly*),

a memory comprising a plurality of instructions that in response to being executed by the at least one processor ([0054], *"The application logic 106 is executed entirely in the server 102"*

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where the application logic has instructions associated with the logic), result in the at least one processor,

loading the remote device with image objects ([0027], “Similarly, the server may be configured to communicate the message to the user interface toolkit on the remote client to render a graphical item” where graphical items can have image objects associated with them), and

As per claim 18, Lok teaches the claimed:

18. The apparatus of claim 17 wherein the plurality of instructions further result in the at least one processor generating the one or more motion commands based upon one or more events generated by an application of the apparatus ([0044], “When the user clicks the button, the toolkit generates an event. In this case, the result may be that a toolkit text window is automatically closed when the event listener detects an event triggered by the button component” where closing the toolkit text window is a command).

As per claim 19, Lok teaches the claimed:

19. The apparatus of claim 17 wherein the plurality of instructions further result in the at least one processor generating the one or more motion commands based upon one or more events received from the remote device via the network interface controller ([0046], “These events are then conveyed to the application according to the application programming interface, which enables the application to take some action based on the events generated by the user” where events is communicated across the network between client 104 and server 102 in figure 3).

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As per claim 20, Lok does not teach the claimed limitations.

Suzuki teaches the claimed:

the motion command indicates first location, second location, and the time period (*in figures 12a-c where a motion command indicates motion of the character, i.e. moving from a first location to a second location; the figure shows that this motion occurs as an animation over time; in figure 4 further shows motion occurring over time for a given motion command*).

updating the frame buffer with the image object comprises updating the frame buffer to animate the image object moving from the first location to the second location over the time (*col 18, lines 8-10, "An image display means 107 displays animations by sequentially displaying and updating frame data stored in the frame buffer 105" where this frame buffer is animated over time according to the image cache or animation database and its associated motion commands*).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the motion commands and updating as taught by Suzuki with the teachings of Lok in order to better execute and plan the motion command data structures through the use of explicit coordinate locations and time periods.

As per claims 22 and 23, these claims are similar in scope to claims 12 and 8, respectively, and thus are rejected under the same rationale.

As per claim 24, the reasons and rationale for the rejection of claims 1 and 17 are incorporated herein.

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As per claims 25 and 26, these claims are similar in scope to claims 2 and 20, respectively, and thus are rejected under the same rationale.

As per claims 28 and 29, these claims are similar in scope to claims 12 and 8, respectively, and thus are rejected under the same rationale.

As per claim 30, the reasons and rationale for the rejection of claims 1 and 17 are incorporated herein. Lok teaches the claimed:

30. A computer-readable storage medium having a plurality of instructions stored therein which, when executed by a processor of a computer, cause the processor to perform a process for displaying a GUI on a remote device; and determining to update a graphical user interface in response to one or more events (*where a GUI is shown in figure 5; [0053], “the application logic 106 which resides on the server 102 interacts with the remote client 104 by making calls on the RJFC components on the server 102 alone” where application logic to reside on the server requires a storage medium and [0054], “The application logic 106 is configured by the programmer to interact with the user interface toolkit according to an application programming interface” where the user interface is a graphical user interface*),

As per claims 31, 33, and 34, these claims are similar in scope to claims 20, 12, and 8, respectively, and thus are rejected under the same rationale.

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2. Claims 3, 4, 6, 10, 11, 21, 27, and 32 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Lok et al. (US Pub 2003/0182469) in view of Suzuki et al. (US Patent 6,331,851) in further view of Merrill et al. (US Patent 6,329,821).

As per claim 3, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

3. The method of claim 1 further comprising

receiving a background image from the second device (*col 5, lines 42-46, "During playback of the animation, the server relies on graphic support software in the underlying operating system 120 to create windows, post messages for windows, and paint windows and col 4, lines 66-67, "the color of corresponding pixels in the background bitmap". Thus, for animation playback the background image data is transferred from the server to the client and displayed on the client*),

storing the background image to a background buffer (*col 9, lines 30-32, "The loader constructs a composite bitmap by performing bit block transfers from the decompressed bitmaps to an off-screen buffer" where part of the off-screen buffer is a background buffer where background pixels are stored. This is because the animation is drawn overtop the background, thus in order to form a composite bitmap, some background data is used and maybe loaded from an offscreen buffer*), and

updating the frame buffer with the background image prior to updating the frame buffer with the image object (*col 11, lines 27-29, "Finally, the operating system performs a bit block transfer of this portion to the frame buffer to display the current frame of animation"*).

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It would have been obvious to one of ordinary skill in the art at the time of invention to generate the background images as taught by Merrill with the teachings of Lok in order to enhance the graphical user interface with more interesting features and design through the use of background images on the screen.

As per claim 4, the reasons and rationale for the rejection of claim 3 is incorporated herein. Lok does not teach the remaining claim limitations.

Merrill teaches the claimed:

decompressing the background image (*col 4, lines 66-67, "the color of the corresponding pixels in the background bitmap" and col 13, lines 23-24, "If the image bits are in a compressed format they are decompressed"*) and

storing in a decompressed form (*col 13, lines 31-33, "The animation is played by first rendering the uncompressed frame image data for the next frame to an offscreen video memory buffer"*).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the background decompression techniques as taught by Merrill with the teachings of Lok. The motivation of claim 3 is incorporated herein.

As per claim 6, Lok does not teach the claimed limitations.

Suzuki teaches the claimed:

receiving the image object from the second device (*in figure 1 where image data is received from second device or server 51 into the first device or terminal 52*) and

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Merrill teaches the claimed:

decompressing the image object, and storing the image object in the image cache in a decompressed form (*col 4, lines 66-67, “the color of the corresponding pixels in the background bitmap” and col 13, lines 23-24, “If the image bits are in a compressed format they are decompressed” and col 13, lines 31-33, “The animation is played by first rendering the uncompressed frame image data for the next frame to an offscreen video memory buffer”*).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the image decompression techniques as taught by Merrill with the teachings of Lok. The motivation of claim 3 is incorporated herein.

As per claim 10, Lok does not teach the claimed limitations.

Merrill teaches the claimed:

10. The method of claim 1 wherein

the motion command indicates a first scale and a second scale, (*col 4, lines 31-32, “The animated character 60 can move anywhere in the user interface”, col 15, line 31, “to scale an animation”, 15, lines 33-34, “when the scale of an animation changes” where it is required for a changing animation during scaling to have a beginning scale (first scale) and ending scale (second scale), and col 14, lines 4-6, “After the frame image is rendered to the display device, an operating system timer is set to go off in the amount of time specified by the frame’s duration”*),

updating the frame buffer with the image object comprises updating the frame buffer to animate the image object transitioning from the first scale to the second scale over the time

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period (*col 11, lines 27-29, "Finally, the operating system performs a bit block transfer of this portion to the frame buffer to display the current frame of animation"*).

It would have been obvious to one of ordinary skill in the art at the time of invention to generate the image scaling as taught by Merrill with the teachings of Lok in order to provide a wider array and more flexibility to the image manipulation techniques available to the user for making interesting user interfaces.

As per claim 11, the reasons and rationale for the rejection of claim 10 is incorporated herein.

As per claim 21, the reasons and rationale for the rejection of claim 10 is incorporated herein.

As per claim 27, the reasons and rationale for the rejection of claim 10 is incorporated herein.

As per claim 32, the reasons and rationale for the rejection of claim 10 is incorporated herein.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lok in view of Suzuki in further view of Richardson (NPL Document, "The RFB Protocol").

As per claim 14, Lok does not explicitly teach the remaining claim limitations.

Richardson teaches the claimed:

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14. The method of claim 1 further comprising receiving a capabilities command from the second device, and providing the second device with capabilities of the device (*page 7, section 5.1.1, first paragraph, "Handshaking beings by the server sending the client a ProtocolVersion message. This lets the client know which is the latest RFB protocol version number supported by the server" where this version number is part of the capabilities of the client*).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Lok, Suzuki, and Richardson. Lok and Suzuki can be modified by Richardson by incorporating the capabilities checking technique of Richardson into the network communicate protocol used by Lok in [0057]. One advantage of the combination is to increase the reliability of the system by ensuring adequate capabilities during interaction.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL F. HAJNIK whose telephone number is (571)272-7642. The examiner can normally be reached on Mon-Fri (8:30A-5:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel F Hajnik/
Examiner, Art Unit 2628

/Ulka Chauhan/
Supervisory Patent Examiner, Art Unit 2628